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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/510,913	02/23/2000	Robert Lane Cook	25791.02	3719

62519 7590 06/22/2006

HAYNES AND BOONE, LLP  
901 MAIN STREET  
SUITE 3100  
DALLAS, TX 75202-3789

EXAMINER

BOMAR, THOMAS S

ART UNIT	PAPER NUMBER
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3672

DATE MAILED: 06/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/510,913

Applicant(s)

COOK ET AL.

Examiner

Shane Bomar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2,4,6,8,12-17 and 19-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4,8,19-21,28-42,44 and 45 is/are allowed.
- 6) ☒ Claim(s) 2,6,12-17,22-27,43 and 46-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/13/05</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 20 and 22 are objected to because of the following informalities: claim 20 depends from a cancelled claim, although I will assume that claim 20 was meant to depend from claim 4 in accordance with the amendment to claim 19; and in claim 22, the word --the-- should be placed between “wherein” and “non-” in line 3. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 6, 12-15, and 22-27 are rejected under 35 U.S.C. 102(b) as being anticipated by US patent 3,050,121 to Garrett et al.

It must first be acknowledged that upon becoming aware of this reference, I realized that it anticipated the following claims, which had previously been indicated as allowable over the cited prior art. Therefore, the allowability of the following claims has been respectfully withdrawn.

Regarding the aforementioned claims, Garrett et al disclose an apparatus comprising a solid tubular 11 that has an external seal 128a (shared by both tubulars), the solid tubular is coupled to a perforated tubular 11b at connector 126, wherein a portion of the solid tubular overlaps a portion of the perforated tubular so that the inside diameters of the non-overlapping portions are equal, and further wherein a shoe is coupled to the bottom of the perforated tubular

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(see Figs. 7A-B and col. 13, lines 46-73). It is also disclosed in the figures that the tubulars have thin-walled portions at least in the areas that overlap, and the tubulars also have thick walled portions at 107 and 108 where the two tubulars are not overlapping.

4. Claims 46-52 are rejected under 35 U.S.C. 102(e) as being anticipated by PCT WO 99/35368 to Lohbeck et al.

Regarding claim 46, Lohbeck et al disclose a method of forming a wellbore casing comprising forming a first tubular member 8 having a first portion comprising a first inside diameter and a second portion comprising a second inside diameter, wherein the second inside diameter is greater the first inside diameter (see Fig. 1 and page 7, lines 4-7), positioning a second tubular member 9 within and in overlapping relation to the second portion of the first tubular member, and radially expanding and plastically deforming the overlapping portion of the second tubular member into engagement with the second portion of the first tubular member (see page 6, lines 26-34).

Regarding claims 47-50, the cross sections of the first and second tubular members are substantially circular, wherein, prior to the plastic deformation, the inside diameter of the second tubular member is substantially constant, and wherein, prior to the plastic deformation, the outside diameter of the second tubular member is less than the inside diameter of the first portion of the first tubular member (see Fig. 1 and page 6, lines 26-34).

Regarding claims 51-52, after the plastic deformation, the inside diameter of the plastically deformed overlapping portion of the second tubular member is equal to the inside diameter of the first portion of the first tubular member (see Fig. 1).

***Claim Rejections - 35 USC § 103***

5. Claims 2, 16, 17, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over US patent 5,957,195 to Bailey et al in view of US patent 5,083,608 to Abdrakhmanov et al (the '608 patent).

Regarding claims 2 and 43, Bailey et al teach a wellbore casing (the patch is used to repair casing, and therefore becomes a part of the casing) comprising a tubular member including at least one thin wall section 503 at an end of the tubular member and a thick wall section 501 adjacent to the thin wall section, wherein the thin wall section is not threaded, and wherein the thin wall section is adapted to radially expand and plastically deform from intimate contact with a thin wall portion 504 of a second tubular 502 when the casing 500 is expand by the collet expander, which thereby creates a mono-diameter wellbore casing 500 after expansion (see Figs. 10C-E, G, and H; and col. 16, lines 6-25). However, it is not expressly taught that a compressible annular member is coupled to each thin wall section or wherein the compressible annular member extends to the end of the tubular member.

The '608 patent teaches a wellbore casing similar to that of Bailey et al. It is further taught that a compressible annular member 31 is coupled to each thin wall section and wherein the compressible annular member extends to the end of the tubular member (see Figs. 5 and 6). It would have been obvious to one of ordinary skill in the art, having the teachings of Bailey et al and the '608 patent before him at the time the invention was made, to modify the casing taught by Bailey et al to include the compressible member of the '608 patent, in order to obtain a sealed tubular joint. One would have been motivated to make such a combination since the '608 patent has shown it to be notoriously known in the art to use sealing members in between tubular joints

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so that reliability of the joint is increased (see col. 3, lines 35-38 of the '608 patent). The combination also teaches that the outside diameter of the compressible annular member 31 is less than the outside diameter of the thin wall section.

Regarding claim 16, the combination applied to claim 2 above teaches that the compressible annular member is coupled to an exterior surface of the thin wall section of the tubular member (see Figs. 5 and 6 of the '608 patent).

Regarding claim 17, the thin wall section of the tubular member is inherently plastically deformed (see the abstract and col. 1, lines 13-22 of Bailey et al, and col. 5, lines 10-34 of the '608 patent).

6. Claims 53-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lohbeck et al in view of Bailey et al.

Lohbeck et al teach the method of claims 46 and 50 that first and second tubular members coupled together in an overlapping manner. However, it is not expressly taught that overlapping portions of the tubular members have thin walled portions.

Bailey et al teach a method of forming a wellbore casing similar to that of Lohbeck et al. it is further taught that overlapping portions of the tubular members have thin walled portions (see Figs. 10C-E, G, and H). It would have been obvious to one of ordinary skill in the art, having the teachings of Lohbeck et al and Bailey et al before him at the time the invention was made, to modify the casing joints taught by Lohbeck et al to include the thin walled portions of Bailey et al, in order to obtain tubular joints that retain the same inner diameter throughout and are suitable for radial expansion. One would have been motivated to make such a combination

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since Bailey et al have shown it to be notoriously known in the art that tubular joints can have thin walled sections in the region of the joint to facilitate the connection.

***Allowable Subject Matter***

7. Claims 4, 8, 19-21, 28-42, 44, and 45 are allowed.

***Response to Arguments***

8. Applicant's arguments, see pages 31-33, filed April 19, 2006, with respect to claims 4, 19-21, 34-37, 42, 44, and 45 have been fully considered and are persuasive. The rejections of these claims have been withdrawn.

9. Applicant's arguments filed April 19, 2006 with respect to claims 46-56 (in view of Lohbeck) and claims 2, 16, and 17 (in view of Bailey and Abdrakhmanov) have been fully considered but they are not persuasive. As stated in the previous Office Action, Lohbeck does disclose on page 7, lines 4-7, that the casing sections may be pre-expanded to aid in the expansion process, therefore the first tubular member does include a second portion with a larger inside diameter. The 103 rejection with Bailey and Abdrakhmanov is still considered valid because the claims only call for a wellbore casing with thin- and thick-walled portions, wherein the thin-walled portions overlap and create a mono-diameter wellbore casing after expansion. The casing patch of Bailey is used to repair casing, and therefore becomes a part of the casing and can be considered a wellbore casing because the claims are not so limited that only one section of casing could not be used to anticipate, or obviate, the claim. Since the combination

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casing patch, or simply casing, has all of the structural limitations of the claimed wellbore casing, it must still be a valid combination against the claimed invention.

10. Applicant's arguments with respect to claims 12-15 have been considered but are moot in view of the new ground(s) of rejection.

11. With respect to the IDS's, the IDS for September 10, 2003 was considered and mailed on March 15, 2004, the 12 IDS's for May 12, 2005 were considered and mailed on July 21, 2005, and the IDS's for December 13, 2005 have been considered and are being mailed herewith.

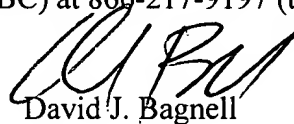
### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shane Bomar whose telephone number is 571-272-7026. The examiner can normally be reached on Monday - Thursday from 6:30am to 4:00pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on 571-272-6999. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



David J. Bagnell  
Supervisory Patent Examiner  
Art Unit 3672

tsb  
June 12, 2006